Engine Serial Numbers

Port: ____________________________________________________

Starboard: _______________________________________________

Hull Identification Number: ________________________________

Hull Identification Number

- The Hull Identification Number (HIN) is located on the starboard side of the transom.
- Record the HIN (and the engine serial numbers) in the space provided above.
- Include the HIN with any correspondence or orders.
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1 Dimensions & Tank Capacities
1 Layout Views
1 Dealer Service
2 Warranty Information
2 Boating Experience
2 Qualified Maintenance
3 Engine & Accessory Guidelines
3 Engine & Accessory Literature
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7 Factors that Increase the Effects of CO Poisoning
8 Where and How CO Can Accumulate
8 How to Protect Yourself and Others From CO
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Hazard Boxes & Symbols

The hazard boxes and symbols shown below are used throughout this supplement to call attention to potentially dangerous situations which could lead to either personal injury or product damage. Read all warnings carefully and follow all safety instructions.

⚠️ DANGER!
This box alerts you to immediate hazards which WILL cause severe personal injury or death if the warning is ignored.

⚠️ WARNING!
This box alerts you to hazards or unsafe practices which COULD result in severe personal injury or death if the warning is ignored.

⚠️ CAUTION
This box alerts you to hazards or unsafe practices which COULD result in minor personal injury or cause product or property damage if the warning is ignored.

NOTICE
This box calls attention to installation, operation or maintenance information, which is important to proper operation but is not hazard related.

- FIRE HAZARD!
- EXPLOSION HAZARD!
- NO OPEN FLAME!
- ELECTRICAL HAZARD!
- HOT HAZARD!
- FALLING HAZARD!
- ROTATING PROPELLER HAZARD!
- RUN BILGE BLOWERS FOR 4 MINUTES!
- CO POISONING HAZARD!
Chapter 1: Welcome Aboard!

- This Owner’s Manual Supplement provides information about your boat that is not covered in the Cruiser & Yacht Owner’s Manual.
- Before using your boat, study this Owner’s Manual Supplement, the Cruiser & Yacht Owner’s Manual, and all engine and accessory literature carefully.
- Keep this Owner’s Manual Supplement and the Cruiser & Yacht Owner’s Manual on your boat in a secure, yet readily available place.

Dimensions & Tank Capacities

<table>
<thead>
<tr>
<th>Overall Length</th>
<th>Length Rigged</th>
<th>Bridge Clearance</th>
<th>Beam</th>
<th>Draft (Hull)</th>
<th>Draft (Maximum)</th>
<th>Fuel Capacity</th>
<th>Freshwater Capacity</th>
<th>Holding Tank Capacity</th>
</tr>
</thead>
<tbody>
<tr>
<td>35' 0”</td>
<td>35' 11”</td>
<td>10' 7”</td>
<td>11' 6”</td>
<td>2' 2”</td>
<td>3' 5”</td>
<td>175 Gallons</td>
<td>31 Gallons</td>
<td>30 Gallons</td>
</tr>
</tbody>
</table>

Layout Views

Dealer Service

- Your dealer is your key to service.
- Ask your dealer to explain all systems before taking delivery of your boat.
- Contact your dealer if you have any problems with your new boat.
- If your dealer cannot help, call our customer service hotline: 360-435-8957 or send us a FAX: 360-403-4235.
- Buy replacement parts from any authorized Bayliner dealer.
**Warranty Information**

- Bayliner offers a Limited Warranty on each new Bayliner purchased through an authorized Bayliner dealer.
- A copy of the Limited Warranty was included in your owner’s packet.
- If you did not receive a copy of the Limited Warranty, please contact your Bayliner dealer or call 360-435-8957 for a copy.

**Boating Experience**

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**CONTROL HAZARD!**

A qualified operator **MUST** be in control of the boat at **ALL** times. Do **NOT** operate your boat while under the influence of alcohol or drugs.

---

If this is your first boat or if you are changing to a type of boat you are **not** familiar with, for your own comfort and safety, obtain handling and operating experience **before** assuming command of this boat.

Take one of the boating safety classes offered by the U.S. Power Squadrons or the U.S. Coast Guard Auxiliary. For more course information, including dates and locations of upcoming classes, contact the organizations directly:

- U.S. Power Squadrons: 1-888-FOR-USPS (1-888-367-8777) or on the Internet at: http://www.usps.org
- In Canada, for the CPS courses call 1-888-CPS-BOAT.
- U.S. Coast Guard Auxiliary: 1-800-368-5647 or on the Internet at: http://www.cgaux.org

Outside the United States, your selling dealer, national sailing federation, or local boat club can advise you of local sea schools or competent instructors.

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**Qualified Maintenance**

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**WARNING!**

To maintain the integrity and safety of your boat, allow **ONLY** qualified personnel to perform maintenance on, or in any way modify the:

- Steering system
- Propulsion system
- Engine control system
- Fuel system
- Environmental control system
- Electrical system
- Navigational system

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- Failure to maintain your boat’s systems (listed in the warning above) as designed could violate the laws in your jurisdiction and could expose you and other people to the danger of bodily injury or accidental death.
- Follow the instructions provided in the *Cruiser & Yacht Owner’s Manual*, this *supplement*, the engine owner’s manual, and all accessory literature.
Engine & Accessory Guidelines

**NOTICE**
When storing your boat, please refer to your engine’s operation and maintenance manuals.

**NOTICE**
Certain modifications to your boat WILL result in cancellation of your warranty protection. ALWAYS check with your dealer BEFORE making any modifications to your boat.

- Your boat’s engines and accessories were selected to provide optimum performance and service.
- Installing different engines or other accessories may cause unwanted handling characteristics.
- Should you choose to install different engines or accessories that will affect your boat’s running trim, have an experienced marine technician perform a safety inspection and handling test before operating your boat again.

**Engine & Accessory Literature**
- The engines and accessories installed on your boat come with their own operation and maintenance manuals.
- Read these manuals before using the engines and accessories.
- Unless noted otherwise, all engine and accessory literature referred to in this supplement is included in your owner’s packet.

**Propellers**

**CAUTION**

**ENGINE DAMAGE HAZARD!**

The factory standard propellers may not be the best for your particular boat and load conditions. Refer to the engine manual for engine RPM ratings. The engines should reach, but not exceed their full rated RPM when full-throttle is applied.

Immediately contact your local Bayliner dealer if:

- The engines cannot reach their full rated RPM when full-throttle is applied, or;
- The engines exceed their full rated RPM when full-throttle is applied.

- Keep the propellers in good repair and at the correct pitch for your particular situation.
- A slightly bent or nicked propeller will adversely affect the performance of your boat.
Safety Standards

**DANGER!**

**FALLING and ROTATING PROPELLER HAZARD!**
- *NEVER* allow anyone to ride on parts of the boat NOT designed for such use.
- Sitting on seat backs, lounging on the forward deck, bow riding, gunwale riding or occupying the transom platform while underway is especially hazardous and *WILL* cause personal injury or death.

**DANGER!**

**FALLING, ROTATING PROPELLER and CARBON MONOXIDE POISONING HAZARD!**
- *NEVER* allow anyone to occupy, or hang from, the back deck or swim platform while the engine(s) are running.
- Teak surfing, dragging, or water skiing within 20 feet of a moving watercraft can be fatal.

**DANGER!**

**PERSONAL SAFETY HAZARD!**

*ALWAYS* secure the anchor and other loose objects *BEFORE* getting underway. The anchor and other items that are *NOT* properly secured can come loose when the boat is moving and cause personal injury or death.

**WARNING!**

A wide variety of components used on this vessel contain or emit chemicals known to the State of California to cause cancer and birth defects and other reproductive harm.

Examples Include:
- Engine and generator exhaust
- Engine and generator fuel, and other liquids such as coolants and oil, especially used motor oil
- Cooking fuels
- Cleaners, paints, and substances used for vessel repair
- Waste materials that result from wear of vessel components
- Lead from battery terminals and from other sources such as ballast or fishing sinkers

To Avoid Harm:
- Keep away from engine, generator, and cooking fuel exhaust fumes.
- Wash exposed skin thoroughly with soap and water after handling the substances above.

- Your boat’s mechanical and electrical systems were designed to meet safety standards in effect at the time it was built.
- Some of these standards were mandated by law, and all of them were designed to insure your safety and the safety of other people, vessels and property.

In addition to this *supplement*, please read the *Cruiser & Yacht Owner’s Manual* and *all* accessory instructions for important safety standards and hazard information.
Special Care for Moored Boats

NOTICE
- To help seal the hull bottom and reduce the chance of gelcoat blistering while your boat is moored, apply an epoxy barrier coating.
- Cover the barrier coating with several coats of anti-fouling paint.
- Many states regulate the chemical content of bottom paints in order to meet environmental standards. Check with your local dealer about recommended bottom paints, and about the laws in effect in your area.

• Whether moored in saltwater or freshwater, your boat will collect marine growth on its hull bottom.
• This will detract from your boat’s beauty, greatly affect its performance, and may damage the gelcoat.
• There are two methods of slowing marine growth:
  1. Periodically haul your boat out of the water and scrub the hull bottom with a bristle brush and a solution of soap and water.
  2. Occasionally re-paint the hull below the waterline with a good grade of anti-fouling paint.

Sacrificial Anode (Zinc)

NOTICE
- Do NOT paint between the zinc and the metal surface it contacts and do NOT paint over the zinc.
- If the zinc is NOT bonded correctly, it will NOT provide protection.

Your boat is equipped with a sacrificial anode (zinc) to protect underwater metal parts from excessive deterioration. Check the zinc regularly and replace it if it has deteriorated more than 70%.

Many factors affect the rate at which the zinc deteriorates, including:
- Water temperature
- Salinity
- Water pollution
- Stray electrical current

Stray electrical current from your boat, another boat, or the dock may cause complete deterioration of the zinc in just a few weeks. If there is rapid zinc deterioration, measure the electrolytic corrosion around your boat with a corrosion test meter.
Boat Lifting

**WARNING!**
PERSONAL INJURY and/or PRODUCT or PROPERTY DAMAGE HAZARD!
- Lifting slings may slip on the hull.
- Avoid serious injury or death by securing the lifting slings together BEFORE lifting.

**WARNING!**
PERSONAL INJURY and/or PRODUCT or PROPERTY DAMAGE HAZARD!
- NEVER lift any boat using the cleats, or the bow and stern eyes.

**WARNING!**
PERSONAL INJURY and/or PRODUCT or PROPERTY DAMAGE HAZARD!
- Water in the bilge can shift and change the balance of the load.
- If water is present in the bilge, pump or drain the water out of the bilge areas BEFORE lifting your boat.

**CAUTION**
PRODUCT or PROPERTY DAMAGE HAZARD!
- When lifting any boat, ALWAYS use a spreader bar. The spreader bar MUST be equal to the width of your boat at each lifting point.

- Always follow the lift equipment's instructions and requirements.
- When lifting your boat, always position the lifting slings at the port and starboard lifting sling label positions as shown in the illustration.
Carbon Monoxide (CO)

**DANGER!**
- Carbon monoxide gas (CO) is colorless, odorless, tasteless, and extremely dangerous.
- **ALL** engines, generators, and fuel burning appliances produce CO as exhaust.
- Prolonged exposure to low concentrations or very quick exposure to high concentrations **WILL cause BRAIN DAMAGE or DEATH.**
- Teak surfing, dragging, or water skiing within 20 feet of a moving watercraft can be fatal.

**CO Facts**
- CO poisoning causes a significant number of boating deaths each year.
- Called the "silent killer", CO is an extremely toxic, colorless, odorless and tasteless gas.
- CO can harm or even kill you inside or outside your boat.
- CO can affect you whether you’re underway, moored, or anchored.
- CO symptoms are similar to seasickness or alcohol intoxication.
- CO can make you sick in seconds. In high enough concentrations, even a few breaths can be fatal.
- Breathing CO blocks the ability of your blood to carry oxygen.
- The effects are cumulative. Even low levels of exposure can result in injury or death.

**Factors that Increase the Effects of CO Poisoning**
- Age
- Smokers or people exposed to high concentrations of cigarette smoke
- Consumption of alcohol
- Lung disorders
- Heart problems
- Pregnancy
Where and How CO Can Accumulate

Stationary Conditions That Increase CO Accumulations Include:

To correct stationary situations A and/or B:
- Close all windows, portlights and hatches.
- If possible, move your boat away from source of CO.

Running Conditions That Increase CO Accumulations Include:

To correct running situations C and/or D:
- Trim bow down.
- Open windows and canvas.
- When possible, run boat so that prevailing winds help dissipate exhaust.

How to Protect Yourself and Others From CO

- Know where and how CO may accumulate in and around your boat (see above).
- Always maintain fresh air circulation throughout your boat.
- Know where your engine and generator exhaust outlets are located and keep everyone away from these areas.
- Never sit on, or hang onto, the back deck or swim platform while the engines are running.
- Never enter the areas under swim platforms where exhaust outlets are located.
- Although CO can be present without the smell of exhaust fumes, if exhaust fumes are detected on your boat, take immediate action to dissipate these fumes.
- Treat symptoms of seasickness as possible CO poisoning. Get the person into fresh air immediately. Seek medical attention—unless you’re sure it’s not CO.
- Install and maintain CO monitors inside your boat. Never ignore any alarm. Replace monitors as recommended by the monitor manufacturer.
- Follow the checklists provided on the next page.
- Get a Vessel Safety Check.

For information on how to get a free VESSEL SAFETY CHECK, visit www.vesselsafetycheck.org or contact your local U.S. Coast Guard Auxiliary or United States Power Squadrons®.
- U.S. Coast Guard Auxiliary: 1-800-368-5647 or on the Internet at: http://www.cgaux.org
- U.S. Power Squadrons: 1-888-FOR-USPS (1-888-367-8777) or on the Internet at: http://www.usps.org
**CO Checklists**

**Trip Checklist**
- Make sure you know where the exhaust outlets are located on your boat.
- Educate *all* passengers about the symptoms of CO poisoning and where CO may accumulate.
- When docked, or rafted with another boat, be aware of exhaust emissions from the other boat.
- Listen for any change in exhaust sound, which could indicate an exhaust component failure.
- Test the operation of each CO monitor by pressing the test button.

**Monthly Checklist**
- Make sure *all* exhaust clamps are in place and secure.
- Look for exhaust leaking from exhaust system components. Signs include rust and/or black streaking, water leaks, or corroded or cracked fittings.
- Inspect rubber exhaust hoses for burned, cracked, or deteriorated sections. *All* rubber hoses should be pliable and free of kinks.

**Annual Checklist**

*Have a Qualified Marine Technician:*
- Replace exhaust hoses if cracking, charring, or deterioration is found.
- Ensure that your engines and generators are properly tuned, and well maintained.
- Inspect each water pump impeller and the water pump housing. Replace if worn. Make sure cooling systems are in working condition.
- Inspect *all* metallic exhaust components for cracking, rusting, leaking, or loosening. Make sure they check the cylinder head gasket, exhaust manifold, water injection elbow, and the threaded adapter nipple between the manifold and the elbow.
- Clean, inspect, and confirm proper operation of the generator cooling water anti-siphon valve (if equipped).

**CO Monitors**

**NOTICE**
- The stereo memory and CO monitors place a small, but constant drain on the battery.
- If your boat will be unattended for an extended amount of time, plug into shore power with the battery charger turned On.

- Do *not* disconnect the CO monitors.
- Read the manufacturer’s instructions for your CO monitors. If you did *not* get the manufacturer’s instructions, call (800) 383-0269 and they will be mailed to you.

If your boat is *not* equipped with a CO monitor, consider purchasing one from your dealer or marine supply store.
**More Information**

For more information about how you can prevent carbon monoxide poisoning on recreational boats and other ways to boat more safely, contact:

<table>
<thead>
<tr>
<th>United States Coast Guard</th>
<th>National Marine Manufacturers Association (NMMA)</th>
<th>American Boat &amp; Yacht Council, Inc. (ABYC)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Office of Boating Safety (G-OPB-3)</td>
<td>200 East Randolph Drive</td>
<td>3069 Solomon’s Island Road</td>
</tr>
<tr>
<td>2100 Second Street SW</td>
<td>Suite 5100</td>
<td>Edgewater, MD 21037-1416</td>
</tr>
<tr>
<td>Washington, DC 20593</td>
<td>Chicago, IL 60601-9301</td>
<td><a href="http://www.abycinc.org">www.abycinc.org</a></td>
</tr>
<tr>
<td><a href="http://www.uscgboating.org">www.uscgboating.org</a></td>
<td><a href="http://www.nmma.org">www.nmma.org</a></td>
<td>410-956-1050</td>
</tr>
<tr>
<td>1-800-368-5647</td>
<td>312-946-6200</td>
<td></td>
</tr>
</tbody>
</table>

For information on how to get a free VESSEL SAFETY CHECK, visit www.vesselsafetycheck.org or contact your local U.S. Coast Guard Auxiliary or United States Power Squadrons®.

- U.S. Coast Guard Auxiliary: 1-800-368-5647 or on the Internet at: http://www.cgaux.org
- U.S. Power Squadrons: 1-888-FOR-USPS (1-888-367-8777) or on the Internet at: http://www.usps.org
Chapter 2: Locations

Exterior Views

Hull Views

- Portlights
- Entertainment Center Sink Drain
- Water Heater Drain
- Storage Locker Drain
- Deck Drain
- Port Hullside
- Starboard Hullside
- Aft Bilge Pump Drain
- Deck Drain
- Storage Locker Drain
- Holding Tank Vent
- Generator Exhaust (If Equipped)
- Air Conditioner Drain (If Equipped)
- Galley Sink Drain
- Multi-Port Thru-Hull Drain: Forward Bilge Pump, Shower Sump Pump, & Head Sink
- Washing Down Drain
- Storage Locker Drain
- Lift Ladder
- Stern Eye
- Trim Tab
- Transom
- Boarding Ladder
- Stern Eye
- Trim Tab
- Sacrificial Zinc Anode Plate
**Deck Views**

- WIPERS
- GRAB RAILS
- HATCHES
- WINDLASS
- FOOT CONTROLS
- NAVIGATION LIGHT (TYPICAL PORT & STARBOARD)
- WASHDOWN LOCKER
- BOW RAIL
- CLEAT
- NAVIGATION LIGHT (TYPICAL PORT & STARBOARD)
- SPOTLIGHT (IF EQUIPPED)
- ANCHOR ROLLER
- VHF ANTENNA (IF EQUIPPED)
- ALL-ROUND LIGHT
- HORN
- GPS SOCKET (IF EQUIPPED)
- GRAB RAILS
- GRAB HANDLE
- VENTED FUEL FILL DECK FITTING
- TRANSOM STORAGE LOCKER
- HOLDING TANK PUMP-OUT DECK FITTING
- CITY WATER INLET
- FRESHWATER FILL DECK FITTING
- TRANSOM DOOR
The diagram illustrates the various components typically found in a helm layout, including:

- Tachometer
- Compass
- Speedometer
- Trim & Tilt
- Temperature
- Voltage
- Oil pressure
- Fuel
- Chartplotter (if equipped)
- Spotlight control (if equipped)
- Stereo remote control (if equipped)
- 12-volt DC push-to-reset circuit breakers
- 12-volt DC ignition push-to-reset circuit breakers
- Port engine emergency shut-down switch
- Starboard engine emergency shut-down switch
- Depth finder
- VHF radio (if equipped)
- Fire indicator light (if equipped)
- Trim & Tilt switches in lever handle
- Shift/throttle levers

The diagram notes that the actual layout may vary depending on engine and accessory options.

_Optical character recognition (OCR) extraction:_

1. **Helm**
2. **NOTE:** TYPICAL HELM LAYOUT SHOWN. ACTUAL LAYOUT MAY VARY DEPENDING ON ENGINE AND ACCESSORY OPTIONS.
Component Locations

12-Volt DC Accessory Outlets (4 total):

- Two are located at the helm, and;

- One is located on the audio/visual panel behind the forward seatback cushion in the v-berth, and;

- One is located on the starboard aft wall panel in the v-berth.
12-Volt DC Circuit Breakers:
- The 12-volt DC push-to-reset circuit breakers are located at the helm.
- The 12-volt DC main circuit breaker switch and standby-load push-to-reset circuit breakers are located on the battery switch panel.

110-Volt AC Master Panel: Located in the galley cabinet above the refrigerator.
**Air Conditioner Seawater Intake Seacock (If Equipped):** Located in the forward area of the engine room bilge.

**Audio/Visual Panel:** Located behind the forward seatback cushion in the v-berth.

**Batteries:** Located in the port forward corner of the engine room.

**Battery Charger:** Located on the port hullside in the engine room.

**Battery Switch Panel:** Located inside the cockpit entertainment center hatch.
**Bilge Pump - Aft:** Located in the aft end of the engine room bilge.

**Bilge Pump - Forward:**
- Located in the bilge under the entry stairs.
- Access through the forward wall hatch in the aft berth.

**Blower Switches:**
- One is located on the lower switch panel at the helm.
- One is located on the 110-volt AC master panel (if equipped with a generator).
**CO Monitor - Salon:** Located on the port wall panel.

**CO Monitor - Aft Berth:** Located on the port side ceiling of the aft berth.

**Depth Finder Transducer:**
- Located in the bilge under the entry stairs.
- Access through the forward wall hatch in the aft berth.
Engine Hatch Lift Hydraulic Fluid Reservoir (If Equipped): Located on the engine room wall, forward of the port engine.

Engine Hatch Lift Switch (If Equipped): Located at the helm on the upper switch panel.

Freshwater Pump: Located on the port side of the engine room, next to the water heater.
**Freshwater Pump Switch:**
- Located inside the head vanity.
- Access through the vanity door.

**Freshwater Tank:** Located in the port aft corner of the engine room, aft of the water heater.

**Freshwater Fill Deck Fitting (marked WATER):** Located on the port aft corner of the deck, near the transom door.
Fuel Tank:
- Located under the aft berth floor.
- Access to the tank fittings is in the forward area of the engine room.

Fuel Fill Deck Fitting (marked GAS or DIESEL): Located on the starboard aft deck.

Fuel Tank Sending Unit: Access through the hatch under the aft berth mattress.

Generator (If Equipped): Located in the forward area of the engine room.
Generator Circuit Breaker (If Equipped): Located on the generator.

Generator Control Panel (If Equipped): Located on the generator.

Generator Remote Start/Stop Panel (If Equipped): In the galley cabinet above the refrigerator.

Generator Seawater Intake Seacock & Strainer (If Equipped): In the engine room bilge, aft of the generator.
**Holding Tank:** Located on the starboard aft side of the engine room.

**Holding Tank Pump-out Deck Fitting (marked WASTE):** Located on the starboard side of the transom.

**Macerator Underwater Discharge Seacock (If Equipped):** Located in the engine room, forward of the holding tank.

**Macerator Switches (If Equipped):** Located to the right of the helm.
Marine Head (Electric) Seawater Intake Seacock (If Equipped):
- Located in the bilge under the entry stairs.
- Access through the forward wall hatch in the aft berth.

Marine Head Vacuum Flush Switch (If Equipped):
- Located inside the head vanity.
- Access through the vanity door.

Navigation Lights:
- Separate red and green running lights are located on the forward deck.
- A white all-round light is located on the radar arch.
**Shore Power Inlet(s):** Located inside the transom storage locker on the starboard side.

**Shore Power Master Circuit Breaker(s):**
Located inside the transom storage locker on the starboard side.

**Transom Shower (If Equipped):** Located aft of the transom door.

**Trim Tab Hydraulic Fluid Reservoir:**
Located on the transom wall of the engine room.

**Trim & Tilt Pumps:** Located on the transom wall of the engine room.
**Water Heater:** Located on the port side of the engine room.

**Windlass Circuit Breaker:**
Located in the engine room on the port hullside, above the battery charger.

**Windlass Controls:**
- Foot controls are located on the forward deck, next to the starboard navigation light.
- A control switch is located on the upper switch panel at the helm.
Chapter 3: Propulsion & Related Systems

Engines

Read the engine operation and maintenance manuals before starting or working on the engines.

Bilge Blower System

WARNING!

FIRE/EXPLOSION HAZARD

- Use of the bilge blower system is NOT A GUARANTEE that explosive fumes have been removed.
- BEFORE starting the engines or the generator, ALWAYS use the "sniff test" to check the engine and bilge areas for fuel vapors.
- If you smell fuel, do NOT start the engines or the generator and do NOT turn On any electrical devices.
- If you smell fuel and the engines and/or generator are already running, shut Off the engines and/or generator and turn Off ALL electrical devices. Investigate IMMEDIATELY.
- Do NOT obstruct or modify the ventilation system.

- The bilge blower system removes explosive fumes from the engine and bilge areas.
- Fresh air is drawn into the engine and bilge areas through the vents.

To make sure the engine and bilge areas are properly ventilated:
- Use the "sniff test" to check the engine and bilge areas for fuel vapors before starting the engines or the generator (if equipped).
- Always run the bilge blower system for at least four minutes before starting the engines or the generator (if equipped).
- Continue to run the bilge blower system until your boat has reached cruising speed.
- Always run the bilge blower system when running your boat below cruising speed.
Fuel System

**WARNING!**

**FIRE, EXPLOSION, and OPEN FLAME HAZARD!**

- It is very important that the fuel system be inspected thoroughly the first time it is filled and at each subsequent filling.
- The fueling instructions in the *Cruiser & Yacht Owner’s Manual* and the fuel recommendations in the engine operation manual *MUST* be followed.

**CAUTION**

Avoid the storage or handling of gear near the fuel lines, fittings and tank.

**NOTICE**

- On diesel engine models, air in the diesel supply system can stop an engine or severely restrict performance.
- If you suspect air in the fuel lines, refer to your engine operation manual for detailed instructions on how to bleed the system.

**NOTICE**

Carefully read the fuel section of both the *Cruiser & Yacht Owner’s Manual* and the engine operation manual, paying special attention to the subject of fuel recommendations.
**Fuel Fill & Vent**
- Depending on engine type, the fuel fill deck fitting is marked either GAS, or DIESEL.
- If you have problems filling the fuel tank, see if the fuel fill hose or fuel tank vent hose is kinked or collapsed.
- If there are no visible signs of a problem, contact your local dealer.

**Gas Engine Fuel Filters**
- The fuel pickup tubes, located inside the fuel tank, are equipped with fine mesh screen filters.
- If your boat features MPI engines, there may be an inline fuel filter on each fuel line.
- Also, when supplied by the engine manufacturer, a fuel filter is installed on the engine.
- Periodically replace the fuel filters to make sure they remain clean and free of debris.
- Talk to your selling dealer or local marina about fuel additives that help prevent fungus or other buildup in your fuel tank.

**Anti-siphon Valves (Gas Engines Only)**

---

**NOTICE**

- If an engine running problem is diagnosed as fuel starvation, check the anti-siphon valve.
- If the valve is stuck or clogged, *ONLY* change or replace it while the engine is *Off*.
- *NEVER* run either engine with its anti-siphon valve removed, except in an emergency.

---

- The anti-siphon valves are vital fuel system parts.
- If a fuel line ruptures, this valve will prevent the fuel from siphoning from the tank.
- The valves are located on the fuel tank, where the fuel feed lines attach to the tank.
- These valves are spring loaded and are opened by fuel pump vacuum.
**Fuel Filter/Water Separators (Diesel Engines Only)**

**NOTICE**
- The frequency of water draining or element replacement is determined by the contamination level in the fuel.
- Inspect the collection bowls for water daily.
- Replace the elements at least once a year, or when a loss of power is noticed, whichever comes first.

- Each fuel feed line features a fuel filter/water separator.
- Service instructions for the fuel filter/water separators are provided on the filters.

**Electronic Fuel Shut-off Valves (Diesel Engines Only)**
- Your diesel engines are equipped with electronic fuel shut-off valves.
- When you start your engines, the electronic fuel shut-off valves open to allow fuel to the engines.
- When you turn off the engines, the electronic fuel shut-off valves close, stopping the fuel from going to the engines.
- If one of the electronic fuel shut-off valves malfunctions, it has a manual override.
- Turn the manual override clockwise to open the electronic fuel shut-off valve.
Quick Oil Drain System

- A quick oil drain assembly is attached to the oil pan on each engine.
- Some setup is needed before you can use this system.

Setting Up the Quick Oil Drain System

1. Unscrew the factory installed bilge plug from the bilge drain.
   NOTE: Keep the factory bilge plug on your boat as a spare.

2. On the starboard engine, unclip the oil drain hose assembly and the bilge plug assembly from the wire loop.
3. Unclip the bilge plug swivel clip from the cable on the end of the oil drain hose. **NOTE: This bilge plug assembly will be your spare. Keep it in the same location as the factory bilge plug removed in step 1.**

4. Feed the oil drain hose into the bilge area aft of the engine.

5. Thread the oil drain hose, cable, and plug out through the bilge drain.

6. **Adjust the hose stop clamp so that no more than 12 inches of hose, including the oil drain plug, can extend out of the bilge drain.**

7. Push the oil drain hose and the oil drain plug back into the bilge, but leave the drain hose cable outside of the bilge drain.
8. Repeat steps 2 through 7 on the port engine’s quick oil drain assembly. The only difference being; the bilge plug assembly, unclipped in step 3, will be used in step 9.

- At this point, both of the oil drain hose cables should be hanging out of the bilge drain.

9. Clip the bilge plug swivel clip to both of the oil drain hose cables.

10. Push the oil drain hose cables and the bilge plug swivel clip and cable into the bilge.

11. Screw the bilge plug into the bilge drain and tighten firmly.

**Using the Quick Oil Drain System**

1. Remove your boat from the water.
2. Un螺丝 the bilge plug.
3. Pull the bilge plug cable out of the bilge drain until the swivel clip and the oil drain hose cables appear.
4. Unclip one of the oil drain hose cables from the swivel clip. **NOTE: Make sure the other drain cable remains attached to the swivel clip.**
5. Pull the unclipped hose cable until the oil drain plug and the oil drain hose slide out of the bilge drain.
6. Place the end of the oil drain hose into a suitable container.
7. Un螺丝 the oil drain plug and drain the engine oil.
8. Screw the oil drain plug back into the oil drain hose and tighten firmly.
9. Push the oil drain hose and oil drain plug back into the bilge.
10. Reclip the oil drain hose cable back onto the swivel clip.
11. Repeat steps 4 through 10 beginning with unclipping the other oil drain hose cable.
12. Push all of the cables back into the bilge and screw the bilge plug into the bilge drain and tighten firmly.
13. Dispose of the waste oil in accordance with local regulations.
Engine Hatch Lift System (If Equipped)

**NOTICE**
- Remove any items from the top of the engine hatch BEFORE Opening.
- Close all entertainment center doors and hatches BEFORE Opening and/or Closing the engine hatch.

- The engine hatch hydraulic lift pump is controlled by a rocker switch at the helm.
- Periodically (at least once a year) check the fluid level in the lift pump hydraulic fluid reservoir and refill as needed. For the location of the fluid reservoir, see the Component Locations section of Chapter 2 in this supplement.

Fire Suppression System (If Equipped)

- The fire suppression system is designed to extinguish engine compartment fires.
- **Before** using your boat for the first time, read the fire suppression system’s instruction and maintenance manual and follow all warnings.
- The system will discharge automatically whenever direct heat from a fire is detected in the engine compartment.
- The system can be discharged manually by pulling the T-handle (labeled FIRE) at the helm.
- The system can only be discharged **once**.
- After the system is discharged, it **must** be refilled and refurbished **before** it can be used again.
Chapter 4: Controls & Gauges

Steering
- Your boat features a power assisted rack-and-pinion steering system.
- For information about the 'power-assist fluid reservoir', refer to the engine operation and maintenance manual.
- Boat steering is not self-centering.
- Refer to the engine manual for more steering system details.

Shift/Throttle Controls

![WARNING!]

**LOSS OF CONTROL HAZARD!**

Improper maintenance of the shift/throttle hardware may cause a sudden loss of control!

Read *all* of the information about the shift/throttle controls in the shift/throttle manual, the engine operation manual, and the *Cruiser & Yacht Owner’s Manual*.

Power Trim & Tilt
- The stern drives on your boat are equipped with power trim and tilt.
- Trim and tilt instructions are provided in the engine operation manual and the shift/throttle manual.
Trim Tabs

**WARNING!**

*LOSS OF CONTROL HAZARD!*

Improper use of trim tabs WILL cause loss of control!

- Do NOT allow anyone unfamiliar with trim tabs to use them.
- Do NOT use trim tabs in a following sea as they WILL cause broaching or other unsafe handling characteristics.
- Do NOT use trim tabs to compensate for excessive unequal weight distribution.

- **Before** using the trim tabs, read the trim tab operation manual.
- The trim tabs can be used to help keep your boat level at cruising speeds.
- The trim tabs are controlled by two rocker switches at the helm.
- Once cruising speed is reached, the port or starboard trim switch may be used (one at a time) to level your boat.
- Perform trim tab adjustments with several short touches to the switch, rather than one long one.
- After each short touch, allow several seconds for the hull to react.
- Periodically (at least once a year) check the fluid level in the trim tab hydraulic fluid reservoir and refill as needed. For the location of the fluid reservoir, see the *Component Locations* section of *Chapter 2* in this supplement.
Gauges

Cleaning the Gauges

<table>
<thead>
<tr>
<th>CAUTION</th>
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<tbody>
<tr>
<td>PRODUCT or PROPERTY DAMAGE HAZARD!</td>
</tr>
<tr>
<td>• Use only mild soap and water to clean the gauge lenses and bezels.</td>
</tr>
<tr>
<td>• Use of other cleaners, including common window cleaning solutions, may cause the lenses to crack.</td>
</tr>
<tr>
<td>• Lenses cracked in this manner will NOT be covered by our warranty.</td>
</tr>
</tbody>
</table>

Gauge Fogging

• Moisture may occasionally find its way into the gauges causing lens fogging.
• Turning On the gauge lights will help dry the lenses.
• Fogging will not harm the gauges.

Radio Transmission Interference

VHF or other radio transmissions may cause brief erratic readings on the tachometer. This will not damage the tachometer gauge or affect its accuracy when not transmitting.

Fuel Gauge

It is normal for the pointer on your fuel gauge to bounce as fuel sloshes back and forth in the fuel tank.

Twin Engine Readings

It is normal for tachometers and other gauges to have slightly different readings between engines.
Chapter 5: Navigation & Communication Equipment

Read the manuals for all navigation & communication equipment before using these systems.

Compass

<table>
<thead>
<tr>
<th>NOTICE</th>
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<tbody>
<tr>
<td>• Compass accuracy can be affected by many factors.</td>
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<tr>
<td>• Have a qualified technician calibrate your compass.</td>
</tr>
<tr>
<td>• Make sure the technician gives you a deviation card which shows the corrections to apply in navigational calculations.</td>
</tr>
<tr>
<td>• Keep a copy of the deviation card at the helm.</td>
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</table>

Depth Finder

<table>
<thead>
<tr>
<th>WARNING!</th>
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<tbody>
<tr>
<td>• Do NOT use the depth finder as a navigational aid to prevent collision, grounding, boat damage or personal injury.</td>
</tr>
<tr>
<td>• When the boat is moving, submerged objects will NOT be seen until they are already under the boat.</td>
</tr>
<tr>
<td>• Bottom depths may change too quickly to allow time for the boat to react.</td>
</tr>
<tr>
<td>• If you suspect shallow water or submerged objects, run the boat at very slow speeds.</td>
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</tbody>
</table>

VHF Radio (If Equipped)

• Your boat may include a VHF (Very High Frequency) radio.
• As permitted by the FCC (Federal Communications Commission), the VHF radio can be used to access weather reports, summon assistance, or contact other vessels.
• Contact the FCC for licensing, rules and regulations concerning VHF radio usage.
Global Positioning System (GPS) (If Equipped)

WARNING!

- The GPS system should **NOT** be relied upon as the **ONLY** aid to navigation.
- A qualified operator **MUST** monitor the GPS system at **ALL** times and keep a look-out for other marine traffic and possible collision situations.

NOTICE

The GPS system is **ONLY** an aid to navigation. It's accuracy can be affected by:

- Equipment failure or defects
- Environmental conditions
- Improper handling or use
Chapter 6: Plumbing

Bilge Pumps

NOTICE
Discharge of oil, oil waste, or fuel into navigable waters is prohibited by law. Violators are subject to legal action by the local authorities.

- Your boat is equipped with two bilge pumps for pumping water out of the bilge.
- The bilge pumps are controlled by automatic float switches (autofloat switches) and/or switches at the helm.
- The bilge pumps are wired directly to the battery.
- Unless the battery is dead, the pumps should work even when your boat is unattended.
**Bilge Pump Testing**

- The bilge pumps are vital to the safety of your boat.
- Test the bilge pumps often.

1. One at a time, turn *On* each bilge pump switch at the helm.
2. Make sure that water in the bilge is pumped overboard.

- If there is water in the bilge and the pump motor is running but *not* pumping, inspect the discharge hose for a kink or collapsed area.
- If the discharge hose looks okay, check the bilge pump housing for clogging debris (see below).

### Checking for clogging debris:

1. Remove the pump motor from the housing:
   a. Lift the tab while rotating the fins counter-clockwise.
   b. Lift out the pump motor.
   c. Clear the housing of debris.
2. Reinstall the pump motor:
   a. Make sure the "O" ring is properly seated.
   b. Coat the "O" ring with a light film of vegetable or mineral oil.
   c. Align the cams on either side of the pump motor with the slots on the housing.
   d. Press the pump motor into the housing while twisting clockwise.
3. Check the reinstallation by trying to twist the fins counter-clockwise *without* lifting the tab; the pump motor should stay in place.
Autofloat Switches

- The automatic bilge pumps use float (autofloat) switches to automatically turn On the pumps whenever water rises to a preset level in the bilge.
- The autofloat switches are normally mounted next to the bilge pumps they control.
- Test the autofloat switches often.

Autofloat testing:

1. Lift the float switch test button to turn On the bilge pump.
   - If the pump does not turn On, check the push-to-reset circuit breaker.
   - If the fuse is good but the switch still doesn’t work, it may mean the switch is bad or possibly the battery is low.
2. After testing, push the test button all the way down to return the float switch to auto mode.

⚠️ CAUTION

When the test is completed on each float switch, you MUST push the test button ALL THE WAY DOWN to return the switch to auto mode!
Seawater Systems

Seacocks

**WARNING!**

**FLOODING and SWAMPING HAZARD!**
- Close the seacock(s) when leaving your boat unattended for any length of time.
- If a seacock is left open, a hose failure could flood the bilge, swamp the batteries and the engines, and even sink your boat.

**CAUTION**

**SYSTEM DAMAGE HAZARD!**
- BEFORE using any system that has a seacock, make sure that the system’s seacock is Open.
- Inspect and lubricate all seacocks annually.

Thru-hull inlet or outlet fittings near or below the waterline feature seacock valves. You can close a seacock to stop water entry:
- If the hose connected to the seacock fails, or;
- To work on equipment served by the seacock.

Seacocks are used on your boat in seawater intake or liquid discharge systems including, but not limited to:
- Air conditioner (if equipped)
- Marine head (toilet)

**Before** using any system with a seacock, make sure the seacock is Open and stays Open until the system is shut Off.

Seawater Strainers

**CAUTION**

**FLOODING HAZARD!**
- BEFORE taking apart a seawater strainer for cleaning or other maintenance, Close the seacock that sends seawater to that strainer.
- Failure to close the seacock before taking apart the seawater strainer may allow large amounts of water to flood the bilge, which could swamp the batteries and the engines, and even sink the boat.
- Keep the seacock Closed until the seawater strainer is completely reassembled.

**SYSTEM DAMAGE HAZARD!**
- After putting the seawater strainer back together, make sure that the seacock valve is Open BEFORE using the component/system.

- Seawater strainers are used to filter incoming seawater in some seawater intake systems. NOTE: Not all seawater intake systems have seawater strainers.
- If equipped, the seawater strainer is located near the seawater intake system’s seacock.
- Check the strainers for leaks and/or debris every time you use your boat.
- Refer to the seawater strainer instruction sheet for cleaning and maintenance information.
Seawater Washdown

**WARNING!**

**FLOODING and SWAMPING HAZARD!**

- *NEVER* leave your boat unattended while using the seawater washdown system.
- Any leak or break in this system may allow large amounts of water to flood the bilge, which could swamp the batteries and the engines, and even sink your boat.
- *Close* the intake seacock when leaving your boat unattended for any length of time.

**CAUTION**

**SYSTEM DAMAGE HAZARD!**

*BEFORE* turning *On* the seawater washdown system, make sure the intake seacock is *Open.*
Freshwater System

**WARNING!**

- **ONLY** use safe drinking (potable) water in your boat’s freshwater system.
- **ONLY** use FDA approved "drinking water safe" hoses when filling the freshwater tank or connecting to city water.
- **NEVER** use common garden hoses for drinking water.

- Read the *Freshwater System* section in the *Cruiser & Yacht Owner’s Manual*.
- The freshwater fill deck fitting is marked “WATER”.
- Pressurize the freshwater system by either:
  a. turning **On** the freshwater pump switch (the battery switch must also be **On**) or;
  b. connecting to city water (if equipped).
- For the locations of the freshwater pump switch and the city water inlet, see the *Component Locations* section of Chapter 2 in this supplement.
- Turn **Off** the freshwater pump switch when your boat is **not** in use or when the freshwater tank is empty.
- Inspect and clean the freshwater filter often (the filter is located on the freshwater pump).
- If your boat is to be left unattended for a long period of time, pump the freshwater tank dry to prevent stored water from becoming stagnant and distasteful.
- If the freshwater system needs to be disinfected, ask your dealer about treatments available for your boat’s system.
**Freshwater System Winterization**

1. Turn *Off* the water heater breaker switch.
   
   **NOTE:** Tag or Mark the water heater breaker switch to prevent it from being turned *On* while the water heater tank is empty.

2. Turn *On* the freshwater pump switch.
3. *Open all* of the faucets and showers and let the freshwater system drain completely.
4. Turn *Off* the freshwater pump switch.

*All* of the remaining water *must* be removed from the water lines. There are two ways to remove the remaining water from the lines:

- Compressed Air
- Gravity Draining

### Compressed Air

**CAUTION**

**FRESHWATER SYSTEM DAMAGE HAZARD!**

- A faucet must be open when compressed air is blown through the freshwater system.
- *NEVER* blow compressed air through the water system when *ALL* of the faucets are *Closed*.

You *must* have an air compressor with an air hose and an air nozzle.

1. Remove the water line from the outlet side of the freshwater pump (opposite side from filter).
2. *Open* the faucet that is furthest away from the freshwater pump.
3. Place the air nozzle against the end of the just removed water line and blow air through the system.
4. When water stops coming out of the faucet, stop the air and *Close* the faucet.
5. One at a time, repeat this process on *all* faucets and showers.

### Gravity Draining

1. *Open all* faucets and showers.
2. Remove the drain plug from the tee fitting on the freshwater tank.
3. When the water has stopped draining from the freshwater tank and the water lines, replace the drain plug.
City Water Inlet

**WARNING!**

**FLOODING and SWAMPING HAZARD!**
- *NEVER* leave your boat unattended while the freshwater system is pressurized by city water.
- Any leak or break in this system may allow large amounts of water to flood the bilge, which could swamp the batteries and the engines, and even sink your boat.
- *ALWAYS* turn *Off* the city water supply on the dock before leaving your boat unattended.

- Read the “City Water Hookup” portion of the Freshwater System section in the Cruiser & Yacht Owner’s Manual.
- The freshwater pump switch *must* be *Off* while the freshwater system is being pressurized by a city water supply.

**Transom Shower (If Equipped)**
- Read the manufacturer’s instructions *before* using the transom shower for the first time.
- To use the transom shower, your boat *must* be connected to a dockside freshwater supply, or the freshwater pump switch *must* be turned *On.*
Water Heater

⚠️ WARNING!

**SCALDING HAZARD!**
Water heated by the water heater can be hot enough to scald the skin.

⚠️ CAUTION

**WATER HEATER DAMAGE HAZARD!**
- Do *NOT* turn *On* the water heater circuit breaker on the 110-volt AC master panel until the water heater tank is *COMPLETELY* filled with water.
- The tank is full if water flows from the tap when the hot water is turned *On* in the galley.
- Even brief water heater operation with a dry tank *WILL* damage the heating elements.
- Warranty replacements will *NOT* be made on elements damaged in this manner.
- Drain the water heater and turn the power *Off* when the chance of freezing exists (see the winterizing instructions below).

⚠️ NOTICE

If 110-volt AC power is being provided by shore power or generator power, but the water heater is not working:
- Make sure the water heater circuit breaker on the 110-volt AC master panel is switched *On*.
- If the circuit breaker is *On*, but the water heater is still not working, ask your dealer how to check the push-to-reset circuit breaker located on the water heater.

- Read the water heater instruction manual and heed the warnings above.
- The water heater is connected to the 110-volt AC power system.
- To heat the water, turn *On* the water heater circuit breaker on the 110-volt AC master panel.

**Winterizing the Water Heater**

⚠️ NOTICE

The freshwater system *MUST* be drained *BEFORE* winterizing the water heater (see the *Freshwater System Winterization Instructions* earlier in this section).

1. Turn *Off* the water heater breaker.
2. Disconnect the hose (A) attached to the pressure relief valve (B).
3. If there is any water in this hose, drain it into the bilge or into a bucket.
4. *Open* the pressure relief valve (B).
5. *Open* the drain valve (C).
- Leave the pressure relief and drain valves *Open* until you fit out your boat after storage.
Drain Systems

**Deck Drains**
- Water on the deck is drained overboard through the deck drains.
- Keep the deck drains free of debris.

**Sink Drains**
The galley sink, head sink and entertainment center sink are above the waterline and are gravity drained overboard.
Shower Sump Pump System

- The shower drains into the sump pump box.
- The sump pump box has an autofloat switch.
- When the drain water rises to a preset level, the autofloat switch turns **On** the sump pump, and the drain water is pumped overboard.

Sump Box Cleaning

Periodically clean the sump box (A), filter, and pump as follows:
1. Remove the cover screws (B) and the cover (C).
2. Remove any debris from the box and the filter.
3. Clean the sump pump as outlined in the *Bilge Pump* section of this chapter.

Sump System Winterization

Drain the sump pump system in the months when **not** in use.
1. Disconnect and drain all lines to the unit.
2. Remove the screws from the mounting feet (D) and drain the system.
3. Reinstall the screws in the mounting feet and reconnect the system.
Marine Head & Holding Tank

**NOTICE**
Check with local authorities for regulations regarding the legal use of marine head systems.

Electric Flush Head with Holding Tank (If Equipped)

**WARNING!**
FLOODING and SWAMPING HAZARD!
- Close the seawater intake seacock when leaving your boat unattended for any length of time.
- If the seacock is left open, a hose failure could flood the bilge, swamp the batteries and the engines, and even sink your boat.

- Read the marine head operation and maintenance manual before using the marine head for the first time.
- The electric flush marine head uses seawater to flush waste from the toilet into the holding tank.
- The seawater intake valve (seacock) must be Open for the head to work.
- Check the content level of the holding tank often by looking at the side of tank.
- Empty the holding tank at every opportunity.
- The holding tank is plumbed to a fitting on the deck for dockside pump-out.
- Keep the intake seacock Closed while your boat is underway or when the system will not be used for long periods of time.

Winterizing the System
Read the marine head operation and maintenance manual for winterizing instructions.
Vacuum Flush Head System (If Equipped)

- Read the vacuum flush operation and maintenance manual.
- The vacuum flush head system uses freshwater from the freshwater tank and a vacuum pump to flush waste from the toilet into the holding tank.
- Check the holding tank content level often by looking at the side of tank.
- The holding tank is plumbed to a fitting on the deck for dockside pump-out.
- Empty the holding tank at every opportunity.

Winterizing the System

Read the vacuum flush head’s operation and maintenance manual for winterizing instructions.
Macerator (If Equipped)

To use the macerator to pump waste directly overboard (where regulations permit):

1. **Open** the underwater discharge seacock.
2. Press both macerator switches at the same time to run the pump.
3. Stop running the macerator as soon as the holding tank is empty.
4. **Close** the underwater discharge seacock when you are done pumping.
Chapter 7: Deck Equipment

Cleats & Tow Eyes

⚠️ WARNING!

PERSONAL INJURY and/or PRODUCT or PROPERTY DAMAGE HAZARD!
NEVER lift your boat using the bow and stern eyes or the cleats.

Read the section on towing in the Cruiser & Yacht Owner’s Manual before:
• Towing anything behind your boat.
• Being towed by another vessel.

Windlass

⚠️ DANGER!

PERSONAL SAFETY HAZARD!
• ALWAYS secure the anchor and other loose objects BEFORE getting underway.
• The anchor and other items that are NOT properly secured can come loose when your boat is moving and cause personal injury or death.

⚠️ CAUTION

PRODUCT DAMAGE HAZARD!
Do NOT pull your boat to the anchor using the windlass or continue to run the windlass if it has stalled or is overloaded.

• Read and follow the manufacturer’s instruction manual before using the anchor windlass for the first time.
• The windlass can be controlled from a switch at the helm or from the deck foot switches.
• Make sure that the windlass circuit breaker is turned On before using the anchor windlass.
• To raise the anchor, use engine power (not the windlass) to move your boat to, and directly above, the anchor.
• Dislodge the anchor from the bottom by pulling it straight up with the windlass.
• Make sure the anchor is secured before getting underway.
Canvas

**CAUTION**

**PRODUCT or PROPERTY DAMAGE HAZARD!**

Take down and securely stow *ALL* canvas *BEFORE* transporting your boat by road.

**NOTICE**

Two people are needed for most of the tasks listed in this section.

**NOTICE**

*BEFORE* cleaning and/or stowing your canvas or vinyl, read the sections later in this chapter, *Canvas Care and Vinyl Care*.

### Bimini Top

1. Slide the main bow’s end eyes into the aft hinges on top of each side-windshield and insert the securing pins.
2. Unfold the bimini top and, starting with the center snaps, snap the aft edge of the bimini top to the radar arch.
3. Slide the brace end eyes into the forward hinges on top of each side-windshield and insert the securing pins.

- The jaw slides should *not* need to be adjusted.
- If you think the jaw slides need to be adjusted, obtain the measurements from your selling dealer.
**Camper Top (If Equipped)**

1. Slide the main bow’s end eyes into the forward hinges and insert the securing pins.
2. Unfold the camper top and, starting with the center snaps, snap the forward edge of the camper top to the radar arch.
3. Slide the brace end eyes into the aft hinges and insert the securing pins.
   - The jaw slides should **not** need to be adjusted.
   - If you think the jaw slides need to be adjusted, obtain the measurements from your selling dealer.
**Vinyl Curtains (If Equipped)**

**Forward Bimini Curtain**

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**NOTICE**

When taking down the forward bimini curtain, avoid socket/stud problems by using the following method to unfasten the curtain sockets from the studs on the windshield frame:

- Grasp the edge of the curtain just below each socket and roll the edge upwards. The socket should pop off easily.

---

1. At the top center of the curtain there are two zippers. Zip four to six inches of each zipper to the bimini top.
2. Starting at the bottom center of the curtain and working outwards, press the sockets over the studs on the windshield frame.
3. Fasten the top corner curtain studs to the bimini sockets.
4. Finish zipping the top zippers.

**Side Bimini Curtains**

1. Starting on either side, zip four to six inches of the top zipper to the bimini top.
2. Zip three to four inches of the forward vertical zipper to the forward bimini curtain.
3. Start with the top aft snap and work your way down snapping the curtain to the radar arch.
4. Now work your way forward snapping the curtain to the side-windshield frame.
5. Finish zipping the forward vertical zipper.
6. Finish zipping the top zipper.
7. Repeat steps one through six on the other side.

**Side Camper Curtains**

1. Starting on either side, zip four to six inches of the top zipper to the camper top.
2. Fasten the top aft corner curtain stud to the camper top socket.
3. Start with the top forward snap and work your way down snapping the curtain to the radar arch.
4. Now work your way aft snapping the curtain to the deck.
5. Finish zipping the top zipper.
6. Repeat steps one through five on the other side.

**Aft Camper Curtains**

1. Zip together four to six inches of all camper top to curtain zippers.
2. Snap all curtain snaps to the deck.
3. Finish zipping all zippers.
Canvas Care (see also ‘Clear Vinyl Care’ on next page)

- After each use, especially in saltwater, rinse the canvas with cold freshwater.
- Before stowing, let the canvas air-dry completely.
- The canvas can be rolled or folded for stowage.

Cleaning the Canvas

CAUTION

NEVER use detergents when washing the canvas. Detergents can destroy the water repellency, and mildew/UV resistant finish of your canvas.

Regularly clean the canvas to prevent dirt, pollen, and etc. from embedding in the fabric. Generally, it is easiest to wash the canvas while it is installed on your boat.
- Use a soft-bristled brush to remove all dust and loose dirt.
  1. Hose down the canvas with freshwater.
  2. Gently wash the canvas with a solution of lukewarm water (no more than 100° F) and non-detergent soap, such as Lux or Ivory Flakes.
  3. Rinse thoroughly to remove the soap.
  4. Before stowing, let the canvas air-dry completely.

Stubborn Stains

CAUTION

- Soaking in bleach solutions may remove the waterproof finish of the fabric and may also decrease the life of the polyester thread used in the canvas.
- If needed, a water repellent treatment should be reapplied to your canvas. Ask your dealer about the treatments available for your boat’s canvas.

Some stubborn stains may resist normal washing and you can try the methods below. However, these methods may remove the waterproof finish of the fabric and may also decrease the life of the polyester thread used in the canvas. Reapply a water repellent treatment as needed.

Method 1

1. Add 1/8 cup (2 oz.) of non-chlorine bleach to one gallon of water and mix thoroughly.
2. Thoroughly wet the canvas and then gently scrub the stained area with the weak bleach solution.
3. Rinse with cold water to remove all of the solution.

Method 2

1. Add 1/2 cup (4 oz.) of non-chlorine bleach and 1/2 cup (4 oz.) Ivory Flakes to one gallon of water and mix thoroughly.
2. Soak the canvas in this solution for about 20 minutes.
3. Rinse with cold water to remove all of the solution.
Clear Vinyl Care

**CAUTION**

- *NEVER* store the clear vinyl pieces wet, as this will cause a milky film to develop.
- *NEVER* fold or crease the clear vinyl pieces as cracking will occur.
- Clear vinyl is *NOT* intended for use when your boat is in storage or being moored.
- Clear vinyl does *NOT* hold up well against ultraviolet rays.
- Under direct sunlight conditions, do *NOT* let the clear vinyl touch the framework. The framework radiates heat and can burn the clear vinyl.

- After each use, especially in saltwater, rinse the clear vinyl with cold freshwater.
- *Before* stowing, the clear vinyl must be completely dry. Air drying is best, but you can also carefully dry the vinyl with a chamois or soft cotton cloth.
- The clear vinyl can be rolled or laid out flat for stowage.
- *Never* fold or crease the clear vinyl parts as cracking will occur.

### Cleaning the Clear Vinyl

Regularly clean the clear vinyl to prevent dirt, pollen, and etc. from marring the surface. Generally, it is easiest to clean the clear vinyl while it is installed on your boat.

1. Hose down the clear vinyl with freshwater.
2. Using a soft cotton cloth (*paper towels are abrasive and should never be used on clear vinyl*), gently wash the clear vinyl with soap and water.
3. Rinse thoroughly to remove the soap.
4. *Before* stowing, the clear vinyl must be completely dry. Air drying is best, but you can also carefully dry the vinyl with a chamois or soft cotton cloth.
- Ask your dealer about products available to keep the clear vinyl polished and looking new.
Chapter 8: Appliances & Entertainment Systems

**NOTICE**

ALWAYS keep an approved ABC-type fire extinguisher in galley area.

- The separate instruction sheets or manuals for *all* appliances and entertainment systems contain detailed instructions and important safeguards.
- Read these instruction sheets and manuals *before* using your boat’s appliances and entertainment systems.
- If applicable, make sure the 110-volt AC breaker is turned *On* for the appliance or entertainment system you wish to use.

**Electric Stove**

**WARNING!**

**BURN/SCALDING and/or FIRE HAZARD!**

- Read the stove’s instruction manual *BEFORE* using.
- *ALWAYS* keep an approved ABC-type fire extinguisher in galley area.
- *Do NOT* use the stove while underway.
- Any non-cooking devices on or near your stove during use are potential fire hazards!
- *Do NOT* touch burners, grates or nearby surfaces as they may be hot even when they are dark in color.
- Areas near burners and grates may become hot enough to cause burns.
- During and after use, *do NOT* touch or let clothing or other flammable material come in contact with heated units or areas near the units (burner tops, main frame sides and back, sea rails and pot holders) until they have had sufficient time to cool.

**Refrigerator**

The refrigerator runs on 12-volt DC power *unless* 110-volt AC power is being supplied by shore power or generator power *and* the refrigerator’s circuit breaker on the 110-volt AC master panel is *On*.

**Audio Equipment**

**NOTICE**

AM radio reception may be impaired anytime the engine is running.
Chapter 9: Convertible Seats, Beds, & Tables

Dinette to V-berth Conversion

1. Pull out the table supports (A).
2. Turn control knob (B) on the table leg.
3. Lower the table top (C) by pushing down firmly.

4. Place filler cushion (D) on the table top (C).
L-lounge Conversion

1. Remove table top (A).
2. Remove the two tall support posts (B).
3. Remove the two short support posts from the storage clips under the transom bench (C).
4. Place the two tall support posts (B) into the storage clips under the transom bench (C).
5. Place the two short support posts (D) into the post bases (E).
6. Slide out the lounge supports (F).
7. Place the table top (A) onto the two short support posts (D) and the lounge supports (F).
8. Place the filler cushion (G) on the table top.
Cockpit Table Storage

1. Remove table top (A) from the two support posts (B).
2. Remove the two support posts (B).
3. Place the two tall support posts (B) into the storage clips under the transom bench (C).

4. Put the table top inside of the table storage bag (D).
5. Place the table storage bag (D) in the table storage box (E).
Chapter 10: Lights

Care & Maintenance

All of the lights installed on your boat are of top quality, but you should be aware that failure may periodically occur for a variety of reasons:

1. There may be a blown fuse - replace the fuse.
2. The bulb may be burned out - carry spare bulbs for replacement.
3. A wire may be damaged or may have come loose - repair as required.
4. The bulb base may be corroded - clean the base and coat it with non-conductive electrical lubricant.

Interior & Exterior Lights

- The lights are powered by your boat’s 12-volt DC system.
- The battery switch must be turned On for the lights to work.

Navigation Lights

- Be conservative in the use of battery power.
- Prolonged use of cabin interior lights (overnight) WILL result in a drained battery.

- Avoid the storage of gear where it would block navigation lights from view.

Spotlight (If Equipped)

Read the spotlight operating instructions before using the spotlight.
Chapter 11: Air Conditioner System (If Equipped)

**DANGER!**

**CARBON MONOXIDE POISONING HAZARD!**
- Dangerous carbon monoxide gas (CO) can be brought into your boat through the air conditioning system.
- Read the Carbon Monoxide (CO) section of Chapter 1 in this supplement.

**CAUTION**

**SYSTEM DAMAGE HAZARD!**
The air conditioning system’s seawater intake seacock **MUST** be Opened **BEFORE** turning **On** the air conditioner and **MUST** stay **Open** during use.

- Read the air conditioner manual **before** using the air conditioning system.
- **Before** using the air conditioning system, make sure the breakers on the 110-volt AC master panel are turned **On** and that the system’s seawater intake seacock is **Open**.
- The seacock **must** remain **Open** while the air conditioner is in use.
- Check the seawater strainer for debris **before** each use of the air conditioning system.
- If the strainer needs to be cleaned out, follow the directions in the Seawater Systems section of Chapter 6 in this supplement.
Chapter 12: Electrical System

**DANGER!**

**EXTREME FIRE, SHOCK & EXPLOSION HAZARD!**

- To minimize the risks of fire and explosion, *NEVER* install knife switches or other arcing devices in the fuel compartment.
- *NEVER* substitute automotive parts for marine parts. Marine electrical, ignition and fuel system parts were designed and manufactured to comply with rules and regulations that minimize risks of fire and explosion.
- Do *NOT* modify the electrical systems or relevant drawings.
- Have qualified personnel install batteries and/or perform electrical system maintenance.
- Make sure that *ALL* battery switches are turned *Off BEFORE* performing any work in the engine spaces.

**WARNING!**

**FIRE & EXPLOSION HAZARD!**

- Fuel fumes are heavier than air and *will* collect in the bilge areas where they can be accidentally ignited.
- Visually and by smell (sniff test), check the engines and bilge areas for fumes or accumulation of fuel.
- *ALWAYS* run the bilge blower(s) for at least four minutes prior to engine starting, electrical system maintenance or activation of electrical devices.
- *NEVER* expose the batteries to open flame or sparks, and *NEVER* smoke anywhere near the batteries.

**CAUTION**

**SHOCK & ELECTRICAL SYSTEM DAMAGE HAZARD!**

When the engines are running, *NEVER* turn *Off* the battery switch or disconnect the battery cables. Doing either could cause damage to your boat’s engine and/or electrical system.

**NOTICE**

Electrical connections are prone to corrosion. To reduce corrosion-caused electrical problems:

- Keep *ALL* electrical connections clean.
- Apply a spray-on protectant that is designed to protect connections from corrosion.
12-Volt DC System

Batteries

- The batteries supply electricity for lights, 12-volt accessories, engine starting and, if equipped, generator starting.
- The Electrical section of Chapter 8 in the Cruiser & Yacht Owner’s Manual provides battery care and maintenance instructions.

Battery Switches

**CAUTION**

**SHOCK and ELECTRICAL SYSTEM DAMAGE HAZARD!**

When the engines are running, **NEVER** turn Off the main battery switches or disconnect the battery cables. Doing either could cause damage to your boat’s engines and/or electrical system components.

**NOTICE**

Make sure your selling dealer fully explains how to use the battery switches.

- A separate battery switch is provided for each battery (or battery bank).
- Standby-loads, such as the automatic bilge pumps and the stereo memory, are not affected by the battery switches since they are wired directly to the batteries (see the Wiring Diagrams section of this chapter for more details).
- Turn the battery switches Off whenever your boat will be unoccupied for long periods of time.
- If an engine will not start because of a dead battery, the emergency battery parallel switch allows you to use the other batteries for engine starting.
Battery Switch Positions

**NOTICE**

Since your boat's batteries were installed by your dealer, the battery switch positions listed below may vary. Make sure your selling dealer fully explains how to use the battery switches.

<table>
<thead>
<tr>
<th>BATTERY SWITCHES</th>
<th>ENGINE STARTING</th>
<th>ACCESSORIES &amp; LIGHTS</th>
<th>ENGINE ALTERNATOR</th>
<th>BATTERY CHARGER</th>
</tr>
</thead>
<tbody>
<tr>
<td>PORT START</td>
<td>Battery 1 Provides Starting Power to Port Engine and Generator (If Equipped)</td>
<td>NA</td>
<td>Charges Battery 1</td>
<td>Charges ALL Batteries</td>
</tr>
<tr>
<td>STARBOARD START</td>
<td>Battery 2 and House Battery Provide Starting Power to Starboard Engine</td>
<td>Battery 2 and House Battery Provide Power for Accessories and Lights</td>
<td>Charges Battery 2 and House Battery</td>
<td>Charges ALL Batteries</td>
</tr>
<tr>
<td>EMERGENCY PARALLEL</td>
<td>ALL Batteries Provide Starting Power</td>
<td>ALL Batteries Provide Power for Accessories and Lights</td>
<td>Charges ALL Batteries</td>
<td>Charges ALL Batteries</td>
</tr>
</tbody>
</table>

**Fuses & Circuit Breakers**

- Circuit breakers for engines and main accessory power are on the 12-volt DC push-to-reset circuit breaker panel and on the battery switch panel.
- Some equipment may have secondary fuse protection at the unit, behind the battery switch panel, or at the batteries.
- For the locations of the battery switch panel and the 12-volt DC push-to-reset circuit breakers, see the Component Locations section of Chapter 2 in this supplement.

**12-Volt DC Accessory Outlet(s)**

**CAUTION**

Do *NOT* use the 12-volt accessory outlet with a cigarette or cigar lighter. High temperatures may melt the outlet.

- Your boat is equipped with one or more 12-volt DC accessory outlets.
- The outlet(s) can be used with any 12-volt device which draws 15-amps or less.
- Each 12-volt DC accessory outlet is protected by a 15-amp breaker on the 12-volt DC push-to-reset circuit breaker panel.

**Alternators**

The alternators will keep the batteries properly charged when the engines are running at, or above, cruising speeds.
Battery Charger (If Equipped)

**CAUTION**

**ENGINE and ELECTRICAL SYSTEM DAMAGE HAZARD!**

NEVER run your boat’s engines and the battery charger at the same time.

**CAUTION**

- The battery charging systems (alternator and battery charger) installed on your boat are designed to charge conventional lead-acid batteries.
- **BEFORE** installing gel-cell or other new technology batteries, consult with the battery manufacturer about charging system requirements.

- **Before** using the battery charger, read all instructions and warnings: (1) on the battery charger, (2) on the batteries, and (3) in the battery charger manual.
- The battery charger will automatically charge your boat’s batteries when 110-volt AC power is being provided by shore power or generator power (if equipped), and the battery charger circuit breaker on the 110-volt AC master panel is On.
- The battery switches can be in any position during charging.
- During battery charging you may use 12-volt accessories, such as the lights and stereo, but battery charging will take longer.
110-Volt AC System

**WARNING!**

**FIRE and ELECTRICAL SYSTEM DAMAGE HAZARD!**

- If equipped with a generator, using both shore power and generator power at the same time WILL cause major electrical system damage and could start a fire!
- The power source lockouts on the 110-volt AC master panel prevent the use of shore power and generator power at the same time.
- NEVER bypass the power source lockouts.

**CAUTION**

**WATER HEATER DAMAGE HAZARD!**

- Do NOT turn On the water heater circuit breaker on the 110-volt AC master panel until the water heater tank is COMPLETELY filled with water.
- The tank is full if water flows from the tap when the hot water is turned On in the galley.
- Even brief water heater operation with a dry tank WILL damage the heating elements.
- Warranty replacements will NOT be made on elements damaged in this manner.

**NOTICE**

- Whether using shore power or generator power, the use of several 110-volt AC accessories at the same time can result in an overloaded circuit.
- You may have to turn Off one or more accessories to use another accessory.

- To gain a basic understanding of your boat’s 110-volt AC system, read the handbook A Boater’s Guide To AC Electrical Systems. If this handbook is not in your owner’s packet, call 360-435-8957 and the handbook will be mailed to you.
- The 110-volt AC system is energized by shore power.
- The 110-volt AC system can be energized by shore power, or generator power (if equipped).
- Individual breakers on the 110-volt AC master panel must be turned On to supply power to the accessories you wish to use.
- The 110-volt AC master panel may contain circuit breakers for accessories that are not available for your boat.
Shore Power

⚠️ DANGER!
FIRE, EXPLOSION and SHOCK HAZARD!

- Do NOT alter the shore power connectors and use ONLY compatible connectors.
- Turn Off ALL breakers and switches on the 110-volt AC master panel BEFORE plugging in or unplugging the shore power cord.
- To prevent shock or injury from dropping a "hot" cord into the water:
  a. ALWAYS plug the shore power cord into the boat inlet first, and then into the dockside outlet.
  b. When unplugging from shore power, ALWAYS unplug the shore power cord from the dockside outlet first.
- NEVER leave the shore power cord plugged into the dockside outlet ONLY.
- ONLY use shore power cords approved for marine use. NEVER use ordinary indoor or outdoor extension cords.

⚠️ WARNING!
SHOCK and ELECTRICAL SYSTEM DAMAGE HAZARD!

- Monitor the polarity indicator lights EVERY TIME you connect to shore power.
- If a reversed polarity light turns On when you are connecting to shore power, do NOT turn On the main breaker switches.
- Instead, IMMEDIATELY unplug the shore power cord (ALWAYS from the dockside outlet first) and alert marina management.

⚠️ WARNING!
SHOCK and ELECTRICAL SYSTEM DAMAGE HAZARD!

- BEFORE each use, check the shore power cord for defects or damage.
- NEVER use a damaged or faulty cord since the danger of fire and electrical shock exists.
- Do NOT pinch the shore power cord in doors or hatches, or coil the shore power cord too tightly, since these situations can generate enough heat to result in a fire.
- If a shore power cord is dropped into the water, COMPLETELY dry the blades and contact slots BEFORE using.

⚠️ CAUTION
ELECTRICAL SYSTEM DAMAGE HAZARD!

- NEVER connect to dockside power outside of North America unless you have the international electrical conversion option.
- Using several 110-volt AC accessories at the same time can result in an overloaded circuit. You may have to turn Off one or more accessories to use another accessory.
- Use double insulated or three-wire protected electrical appliances whenever possible.
• Single shore power 110-volt/60-hertz AC systems feature one 110-volt/30-amp shore power receptacle.
• If your boat has an air conditioning system, a second (dual) 110-volt/30-amp inlet has been installed.
• Dual shore power inlets are labeled LINE 1 and LINE 2, which corresponds to the SHORE POWER 1 and SHORE POWER 2 master breakers on the 110-volt AC master panel.
• LINE 1 and LINE 2 are independent of each other except when the parallel switch is used.

Connecting to Shore Power

<table>
<thead>
<tr>
<th>WARNING!</th>
</tr>
</thead>
<tbody>
<tr>
<td>SHOCK and ELECTRICAL SYSTEM DAMAGE HAZARD!</td>
</tr>
</tbody>
</table>

- Monitor the polarity indicator lights **EVERY TIME** you connect to shore power.
- If a reversed polarity light turns **On** when you are connecting to shore power, do **NOT** turn **On** the main breaker switches.
- Instead, **IMMEDIATELY** unplug the shore power cord (**ALWAYS** from the dockside outlet first) and alert marina management.

1. Review *all* hazard information at the beginning of this section, *Shore Power*.
2. Turn **Off** the shore power master circuit breaker(s) and *all* switches and breakers on the 110-volt AC master panel.
3. Attach the shore power cord(s) to the boat inlet(s) first, then to the dockside outlet(s).
4. Turn **On** the SHORE POWER 1 and SHORE POWER 2 (if equipped) master breaker(s) on the 110-volt AC master panel.
5. As needed, turn **On** the individual component breakers on the 110-volt AC master panel.

Parallel Switch (If Equipped with Dual Shore Power)

<table>
<thead>
<tr>
<th>NOTICE</th>
</tr>
</thead>
<tbody>
<tr>
<td>• When using the parallel switch do <strong>NOT</strong> exceed 30 total amps.</td>
</tr>
<tr>
<td>• The amperage of each component breaker is shown on the breaker itself.</td>
</tr>
<tr>
<td>• The voltage on each line can be read on the voltmeter on the 110-volt AC master panel.</td>
</tr>
</tbody>
</table>

When only one dockside outlet is available, you can use the parallel switch to provide power to both lines.

1. Connect to shore power as described in the section *Connecting to Shore Power* earlier in this chapter.
2. Switch the parallel switch **On** instead of the SHORE POWER 2 master breaker.
3. Turn **On** the individual component breakers as required.
Generator (If Equipped)

**DANGER!**

**CARBON MONOXIDE POISONING HAZARD!**
- Generators are a source of dangerous carbon monoxide gas (CO). Check the generator exhaust system for leaks *BEFORE* each use.
- Read the *Carbon Monoxide (CO)* section of Chapter 1 in this supplement.

**WARNING!**

**FIRE/EXPLOSION HAZARD!**
- Use the bilge blowers for a minimum of four minutes *BEFORE* starting the generator.
- Leave the blowers *On* while the generator is running.
- Use of the blower system is *NOT A GUARANTEE* that explosive fumes have been removed. *ALWAYS* use the ‘sniff test’ to check the bilge areas for fuel vapors.
- If you smell any fuel, do *NOT* start the generator.
- If the generator is already running, *IMMEDIATELY* shut *Off* the generator and *ALL* electrical accessories and investigate.
- Do *NOT* obstruct or modify the ventilation system.

**CAUTION**

**SYSTEM DAMAGE HAZARD!**
- *ALWAYS* make sure the generator’s seawater intake seacock is *Open* *BEFORE* starting, and during running of the generator.
- *NEVER* run the generator starter for more than 30 seconds. If the generator does not start, wait at least 30 seconds *BEFORE* trying again.
- After the generator starts, let the generator stabilize *BEFORE* turning *On* the component breakers on the 110-volt AC master panel.

- When your boat is *not* connected to shore power, the generator can supply 110-volt/60-hertz power.
- *Before* using the generator, read the generator operation manual for pre-start checks and break-in procedures.
- Refer to the generator manual for starting/stoping instructions.

**Important generator notes:**
- Polarity has been established in the installation of the generator. Therefore, the polarity lights will *not* function in this mode.
- Fuel to run the main generator is supplied from the starboard fuel tank.
- Periodically replace the fuel filter on the generator to make sure it remains clean and free of debris.
- Diesel generators also have a fuel filter/water separator. Service instructions are provided on the fuel filter/water separator.
- The coolant mixture installed at the factory consists of equal parts of water and antifreeze (Ethylene Glycol).
- Check the generator’s seawater strainer for leaks and/or debris *before* each use.
Electrical Routings

12-Volt DC Deck Harnesses

VIEW IS UNDERSIDE OF DECK

- Windlass Foot Controls
- Starboard Navigation Light
- Port Navigation Light
- Spotlight (if equipped)
- Windlass
- V-Berth Light
- V-Berth Light
- Audio/Visual Panel
- Salon Lights
- Starboard Speaker
- Galley Light
- Starboard Wiper
- Galley Light
- Galley Harness
- Head Harness
- Helm Harness
- Shift/Throttle
- Aft Berth Lights
- To Radar Arch Harness
- Fuel Fill Ground
- Aft Berth Co Monitor
- Port Speaker
- Salon Light
- Port Wiper
- Salon Light
- Entry Light Switch
- Aft Berth Entry Light
- Entry Light
- Aft Berth Lights
- Aft Berth Co Monitor
- Courtesy Light
- Engine Room Light
- Battery Switch Panel
- Courtesy Light
Chapter 12: Electrical System

12-Volt DC Hull Harnesses

- Seawater Washdown Pump
- Courtesy Light
- Galley
- Head
- Helm
- Fire Indicator (If Equipped)
- Fuel Sender
- Bonding Bus
- Engine Hatch Lift Pump (If Equipped)
- Forward Bilge Pump
- Head Intake Seacock Bonding
- Shower Drain Sump Pump
- Fixed Fire Bottle (If Equipped)
- Windlass Circuit Breaker
- Batteries
- Battery Switch Panel
- Battery Charger
- Freshwater Pump
- Cockpit Refrigerator (If Equipped)
- Aft Bilge Pump
- Port Engine & Bonding
- Blowers
- Trim & Tilt Pump
- Forward Bilge Pump
- Trim Tab Pump
- Fix Fire Bottle
- Engine Hatch Lift Pump & Bonding
- Port Starboard
- Shower Drain
- Freshwater Pump
- Port Engine & Bonding
- Trim Tab Pump
- Sacrificial Zinc Anode Bonding
- Trim & Tilt Pump
110-Volt AC Deck Harnesses

VIEW IS UNDERSIDE OF DECK

110-VOLT AC MASTER PANEL

SHORE POWER INLET(S) & SHORE POWER MASTER BREAKER(S)

STARBOARD

PORT
110-Volt AC Hull Harnesses

- Galley Receptacle
- 110-Volt AC Master Panel
- Refrigerator
- Microwave
- Electric Stove
- Air Conditioner Control Panel (if equipped)
- Air Conditioner Unit (if equipped)
- Air Conditioner (if equipped)
- Seawater Pump (if equipped)
- Battery Charger
- Water Heater
- Cockpit Refrigerator (if equipped)
- Port
- Starboard
Battery Cable System

NOTES:
POSITIVE BATTERY CABLES ARE RED
NEGATIVE BATTERY CABLES ARE YELLOW

12-VOLT DC PUSH-TO-RESET CIRCUIT BREAKERS
BUSS BAR
GENERATOR (IF EQUIPPED)
STARBOARD ENGINE
GROUND BLOCKS

HOUSE BATTERY
PORT ENGINE & GENERATOR BATTERY
BATTERY SWITCH PANEL
STARBOARD BATTERY
PORT ENGINE
Wiring Diagrams

Engine Electrical Systems

NOTES:
1. Standard with engine electrical system options.
2. Part numbers correspond to sheet three.
3. Note wire colors will be different.

SOURCES:
- Hill Manufacturing Co.
- Ford Motor Co.
- Chrysler Motor Co.
110-Volt AC System, Single Shore Power

Diagram showing electrical system connections and components, including:
- Circuit Breakers
- Grounding Connections
- 110-Volt AC System

Notes:
1. Green/yellow grounding conductors from all earthed components.
2. Neutral conductors from all ungrounded components.
3. Neutral conductors connect to line one neutral bus.
4. Ground conductors connect to line one neutral bus.
5. 20 amp 120 volt single phase.
6. 16 amp 120 volt single phase.
110-Volt AC System, Dual Shore Power

NOTES:
(1) MAIN BRANCH CIRCUITS SHOWN FOR AC GROUND BUS.
(2) AC CIRCUIT CONNECT TO AC GROUND BUS.
(3) OPTIONAL CIRCUIT CONNECT TO AC GROUND BUS.
(4) MASTER BREAKER SLOTTING CIRCUITS FROM BEING SLOTTED, DESIGNED BY THE OWNER'S MANUAL.
(5) REFRIGERATOR REFRIGERATION SYSTEM.
(6) WATER HEATER WATER HEATER SYSTEM.
(7) ACCESSORY ACCESSORY SYSTEM.
(8) GENERATORINPUT GENERATOR INPUT SYSTEM.
(9) GENERATOR OUTPUT GENERATOR OUTPUT SYSTEM.
(10) BATTERY CHARGER BATTERY CHARGER SYSTEM.
## Important Records

### Selling Dealer
- **Name Of Dealership**
- **Address**
- **Phone/FAX/E-mail**
- **Sales Manager**
- **Service Manager**

### Engires
- **Port Engine Serial Number**
- **Starboard Engine Serial Number**
- **Oil Type/SAE**
- **Quarts per Engine**
- **Filter Type**

### Propeller
- **Manufacturer**
- **Pitch**
- **Model Number**

### Generator
- **Manufacturer**
- **Model Name/Number**
- **Serial Number**
- **Oil Type/SAE**
- **Quarts**
- **Filter Type**

### Key Numbers
- **Ignition**
- **Other**
- **Manufacturer**
- **Model Name/Number**
- **Serial Number**

### Electronics
- **Manufacturer**
- **Model Name/Number**
- **Serial Number**

### Fuel System
- **Fuel Capacity**
- **Filter Type**
## Float Plan

Before going boating, fill out a copy of this float plan (or similar) and leave it with a **reliable** person whom you can depend on to contact the Coast Guard or other rescue organization, if you do not return as scheduled.

### Description of Boat

<table>
<thead>
<tr>
<th>Registration/Documentation Number</th>
<th>Full Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>Length</td>
<td>Age</td>
</tr>
<tr>
<td>Make</td>
<td>Health</td>
</tr>
<tr>
<td>Type</td>
<td>Phone Number</td>
</tr>
<tr>
<td>Hull Color</td>
<td>Distinguishing Features</td>
</tr>
<tr>
<td>Trim Color</td>
<td>Distinguishing Features</td>
</tr>
<tr>
<td>Fuel Capacity</td>
<td>Engine Type</td>
</tr>
<tr>
<td>Engine Type</td>
<td>Number of Engines</td>
</tr>
<tr>
<td>Distinguishing Features</td>
<td>Full Name</td>
</tr>
<tr>
<td></td>
<td>Age</td>
</tr>
<tr>
<td></td>
<td>Health</td>
</tr>
<tr>
<td></td>
<td>Phone Number</td>
</tr>
</tbody>
</table>

### Operator of Boat

<table>
<thead>
<tr>
<th>Full Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age</td>
</tr>
<tr>
<td>Health</td>
</tr>
<tr>
<td>Phone Number</td>
</tr>
<tr>
<td>Male or Female</td>
</tr>
<tr>
<td>Address</td>
</tr>
<tr>
<td>Phone/FAX/E-mail</td>
</tr>
<tr>
<td>Operator’s Experience</td>
</tr>
</tbody>
</table>

### Persons Onboard

<table>
<thead>
<tr>
<th>Full Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age</td>
</tr>
<tr>
<td>Health</td>
</tr>
<tr>
<td>Phone Number</td>
</tr>
<tr>
<td>Full Name</td>
</tr>
<tr>
<td>Age</td>
</tr>
<tr>
<td>Health</td>
</tr>
<tr>
<td>Phone Number</td>
</tr>
<tr>
<td>Full Name</td>
</tr>
<tr>
<td>Age</td>
</tr>
<tr>
<td>Health</td>
</tr>
<tr>
<td>Phone Number</td>
</tr>
<tr>
<td>Full Name</td>
</tr>
<tr>
<td>Age</td>
</tr>
<tr>
<td>Health</td>
</tr>
<tr>
<td>Phone Number</td>
</tr>
<tr>
<td>Full Name</td>
</tr>
<tr>
<td>Age</td>
</tr>
<tr>
<td>Health</td>
</tr>
<tr>
<td>Phone Number</td>
</tr>
</tbody>
</table>
Survival Equipment

<table>
<thead>
<tr>
<th>Marine Radio (Yes/No)</th>
<th>Type</th>
<th>Frequencies</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of PFDs</td>
<td>Flares (Yes/No)</td>
<td>Mirror (Yes/No)</td>
</tr>
<tr>
<td>Smoke Signals (Yes/No)</td>
<td>Flashlight (Yes/No)</td>
<td>Food (Yes/No)</td>
</tr>
<tr>
<td>Water (Yes/No)</td>
<td>Anchor (Yes/No)</td>
<td>Raft/Dinghy (Yes/No)</td>
</tr>
<tr>
<td>Paddles (Yes/No)</td>
<td>EPIRB (Yes/No)</td>
<td>Other</td>
</tr>
<tr>
<td>Other</td>
<td>Other</td>
<td>Other</td>
</tr>
</tbody>
</table>

Trip Expectations

<table>
<thead>
<tr>
<th>Departing From</th>
<th>Departure Date</th>
<th>Departure Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stopover 1</td>
<td>Arrive No Later Than: Date</td>
<td>Arrive No Later Than: Time</td>
</tr>
<tr>
<td>Stopover 2</td>
<td>Arrive No Later Than: Date</td>
<td>Arrive No Later Than: Time</td>
</tr>
<tr>
<td>Stopover 3</td>
<td>Arrive No Later Than: Date</td>
<td>Arrive No Later Than: Time</td>
</tr>
<tr>
<td>Stopover 4</td>
<td>Arrive No Later Than: Date</td>
<td>Arrive No Later Than: Time</td>
</tr>
<tr>
<td>Stopover 5</td>
<td>Arrive No Later Than: Date</td>
<td>Arrive No Later Than: Time</td>
</tr>
<tr>
<td>Stopover 6</td>
<td>Arrive No Later Than: Date</td>
<td>Arrive No Later Than: Time</td>
</tr>
<tr>
<td>Final Destination Port (If Different Than Home Port)</td>
<td>Arrive No Later Than: Date</td>
<td>Arrive No Later Than: Time</td>
</tr>
</tbody>
</table>

If not returned by the date and time listed above, call the Coast Guard or other local authority.

Vehicle Description

<table>
<thead>
<tr>
<th>Make</th>
<th>Model</th>
</tr>
</thead>
<tbody>
<tr>
<td>Color</td>
<td>License Number</td>
</tr>
</tbody>
</table>

Where is the Vehicle Parked?